Insights into the catalytic mechanisms of a 3-ketosteroid Δ1-dehydrogenase and a β-xylosidase obtained from 3D structures

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a 3-ketosteroid Δ^1-dehydrogenase and a β-xylosidase
obtained from 3D structures

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1. The way to get to the truth is often more obvious than the truth itself.
2. By using enzymes, Mother Nature teaches us to work specifically and cooperatively.
3. If an object is unseen, its shadow can still help us to describe the object.
4. Protein crystallization is rather discovered than predicted. A good crystallization condition for a protein can only be determined when the protein crystallizes at that condition.
5. To bind heavy atoms to a protein is just like putting pebbles on the path into a jungle. They may guide us to find the right coordinates..
6. The steroid nucleus is a safe deposit box preserving carbon. In aerobic degradation, it requires a double-key, *i.e.* 3-ketosteroid Δ^1-dehydrogenase and 3-ketosteroid 9α-hydroxylase, to open it.
7. At a proper distance and orientation, a tyrosine plus a tyrosine are not just two tyrosines. They act as a strong base.
8. Research can be fun if we get the expected result. It can be even more fun when we get an unexpected result. It is sad only if we get nothing.